

DAAO Human

Description:DAAO Human Recombinant fused with 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 367 amino acids (1-347 a.a.) and having a molecular mass of 41.6kDa.The DAAO is purified by proprietary chromatographic techniques.

Catalog #:ENPS-432

For research use only.

Synonyms:D-amino-acid oxidase, DAMOX, DAAO, DAO, OXDA, MGC35381.

Source:Escherichia Coli.

Physical Appearance:Sterile Filtered colorless solution.

Amino Acid Sequence:MGSSHHHHHH SSGLVPRGSH MRVVVIGAGV IGLSTALCIH
ERYHSLVQLPL DIKVYADRFT PLTTTDVAAG LWQPYLSDPN NPQEADWSQQ TFDYLLSHVH
SPNAENLGLF LISGYNLFHE AIPDPSWKDT VLGFRKLTPR ELDMFPDYGW GWFHTSLILE
GKNYLQWLTE RLTERGVKFF QRKVESFEEV AREGADVIVN CTGVWAGALQ RDPLLQPGRG
QIMKVDAPWM KH

Purity:Greater than 95.0% as determined by SDS-PAGE.

Formulation:

The DAAO solution contains 20mM Tris-HCl buffer (pH 8.0), 20% glycerol and 1mM DTT.

Stability:

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Introduction:

DAAO is a peroxisomal enzyme which uses FAD (flavin adenine dinucleotide) as a cofactor and oxidizes D-amino acids to the corresponding amino acids, producing ammonia and hydrogen peroxide. DAAO substrates include an extensive array of D-amino acids, but it is inactive on the naturally occurring L-amino acids. DAAO acts on a variety of D-amino acids especially on those having small hydrophobic side chains followed by those bearing polar, aromatic, and basic groups; however it doesn't act on acidic amino acids. DAAO may be involved in acid base balance in the kidney or it could act as a detoxifying agent which removes D-amino acids accumulated during aging. DAAO regulates the neuromodulator D-serine level in the brain. DAAO is highly active towards D-DOPA and contributes to dopamine synthesis. Creatinine inhibits the DAAO in uremia. DAAO may also have a role in the pathophysiology of schizophrenia, but not in bipolar disorder.

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